

The NIDIS Pilot in the Upper Colorado River Basin

*Jim Verdin (USGS), Roger Pulwarty (NOAA),
Nolan Doesken (CSU), Mike Gillespie (NRCS),
Kevin Werner (NOAA), Olga Wilhelmi (NCAR),
Michael Lewis (USGS), Lisa Darby (NOAA),
Chad McNutt (NOAA), Michelle Schmidt (NOAA),
and Kelly Redmond (WRCC)*

Upper Colorado River Basin Pilot

Federal interagency planning workshop

Identify target user groups and geographic extents

Large reservoir operators

Water providers dependent on inter-basin transfers

Ecosystem managers – forest, range, recreation, tourism

Scoping workshop with targeted user groups

Priority actions identified

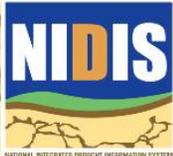
Collaborative process for basin drought monitoring

Supporting research, applications, and services

Drought indicators/triggers

Assessment of gaps

Facilitated web access

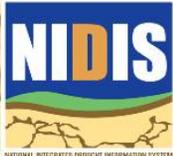


California NIDIS Pilot
Pre-planning meeting
Sacramento - February 17, 2011

Scoping Workshop for the UCRB Pilot

Explore existing mandates, decision cycles, and organizational capacities to guide implementation of the pilot

- Colorado Division of Water Resources (CDWR)
- Colorado State Climatologist
- Colorado River Water Conservation District (CRWCD)
- Colorado Water Conservation Board (CWCB)
- CU – Western Water Assessment, CIRES, and CADSWES
- Denver Water Board
- Northern Colorado Water Conservancy District (NCWCD)
- Wyoming State Engineer
- Wyoming State Climatologist
- Utah State Climatologist
- Western Regional Climate Center
- National Center for Atmospheric Research (NCAR)
- National Drought Mitigation Center (NDMC)
- USDA: Natural Resources Conservation Service
- USFS: Region 2
- USBR: Eastern Colorado Area Office, Great Plains Region, Office of Policy and Programs, Research and Development
- USGS: Colorado Water Science Center, Central Region, Grand Canyon Monitoring and Research Center
- NOAA: Earth System Research Laboratory, National Centers for Environmental Prediction, National Climatic Data Center, National Weather Service

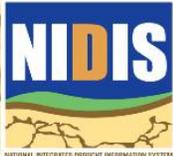


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Interviews and Focus Groups

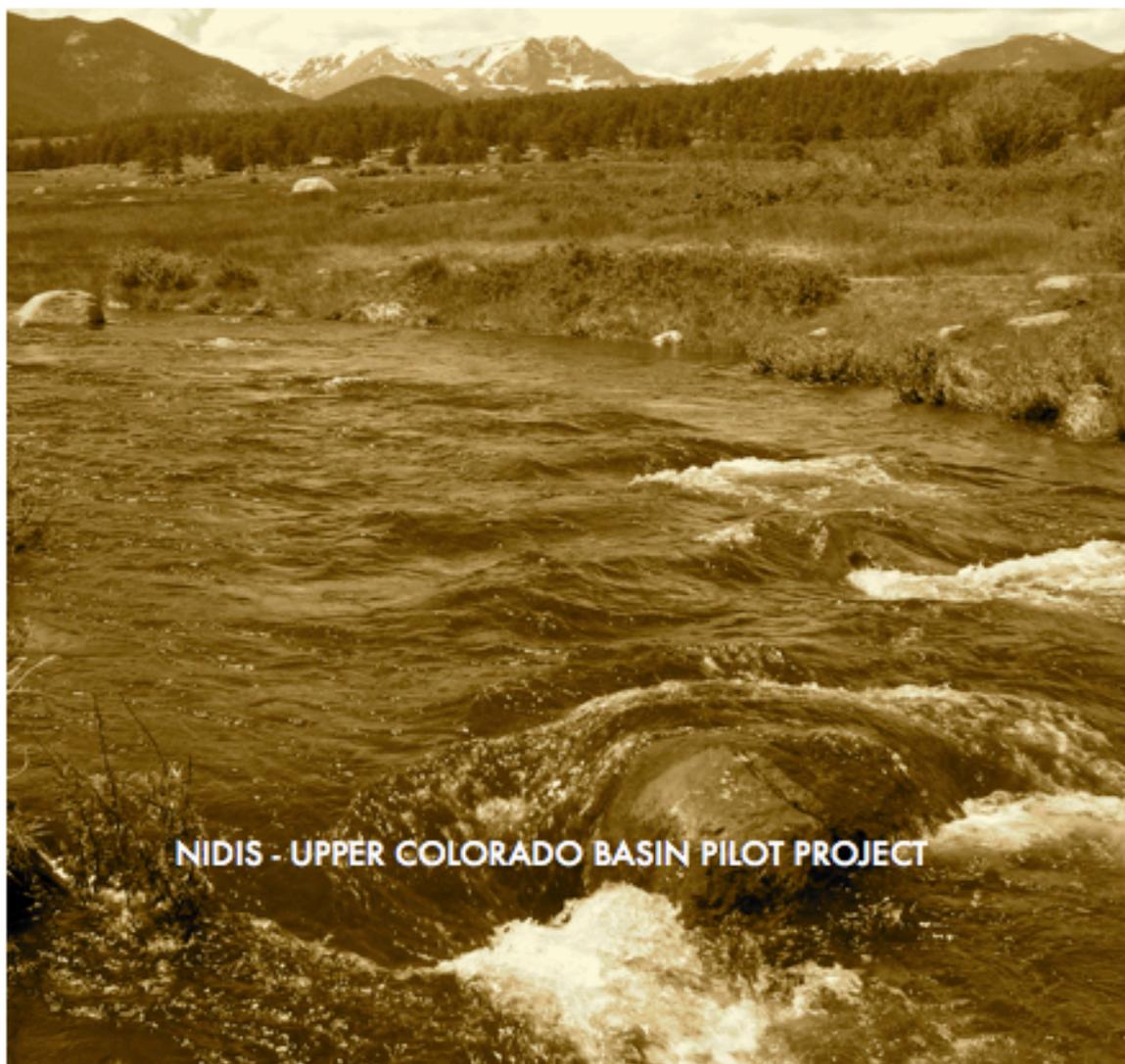
conducted by the Colorado State Climatologist exploring drought indicators, triggers and data needs by sector

- **USBR (Grand Junction and Loveland offices)**
- **Colorado Division of Wildlife**
- **Colorado DNR (state and local)**
- **Denver Water and other smaller water providers**
- **Northwest Council of Governments (water quality)**
- **NGO Watershed protection groups**
- **BLM, NPS and other resource managers**
- **Colorado River Water Conservation District**
- **Northern Colorado Water Conservancy District**
- **EXCEL Energy**
- **Grand County interest group**
- **Summit County interest group**
- **Fraser Experimental Forest**
- **Water Availability Task Force**
- **Winter Park Resorts and other ski area representatives**
- **WY and UT State Climatologists**



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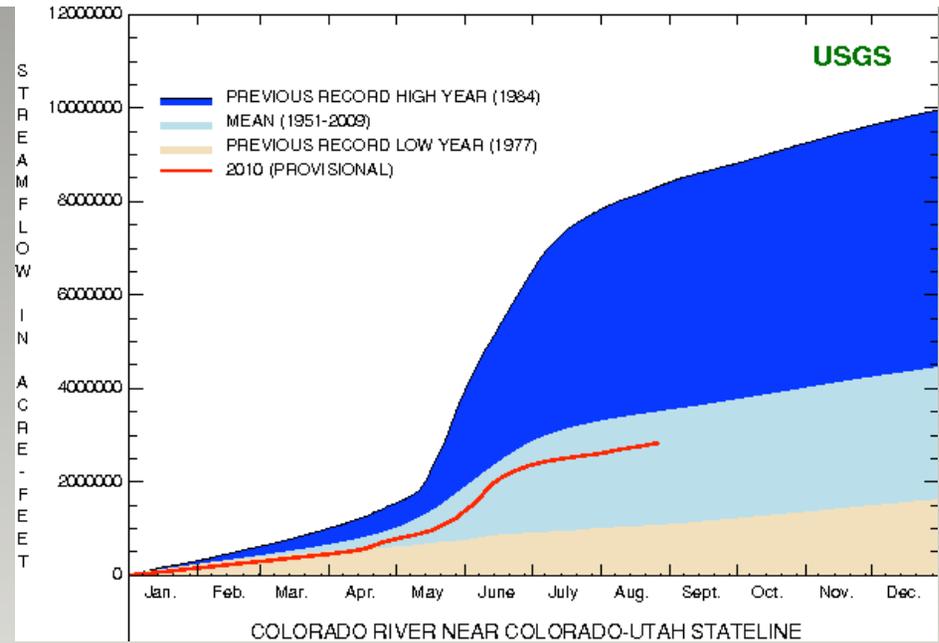
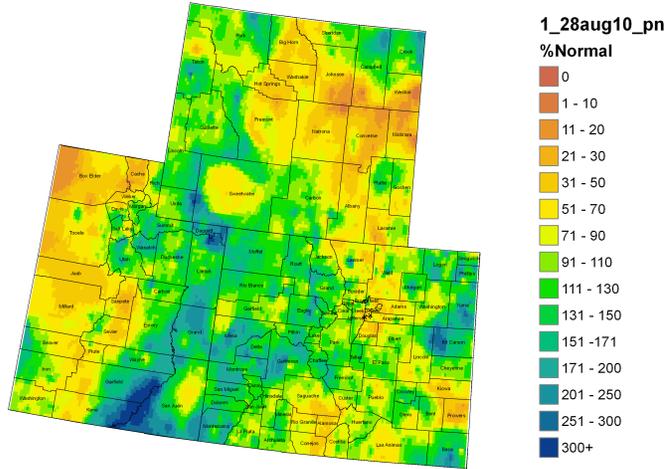
Spring 2010



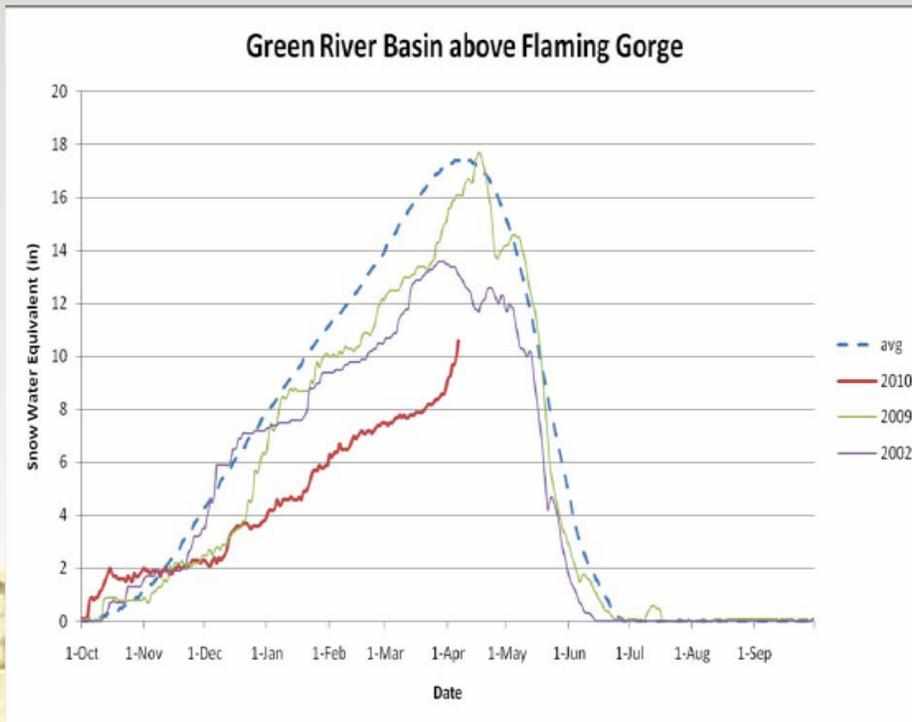
NIDIS - UPPER COLORADO BASIN PILOT PROJECT

Weekly Climate, Water & Drought Assessment

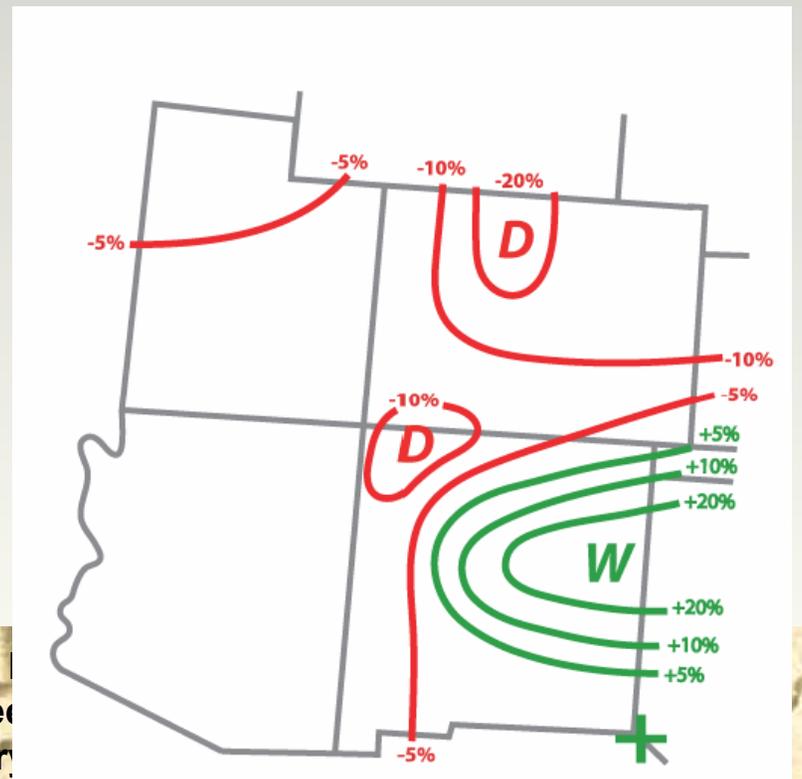
Colorado, Utah and Wyoming Month To Date Precipitation
1 - 28 August 2010 as Percentage of Normal



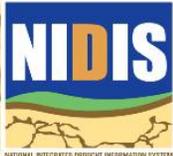
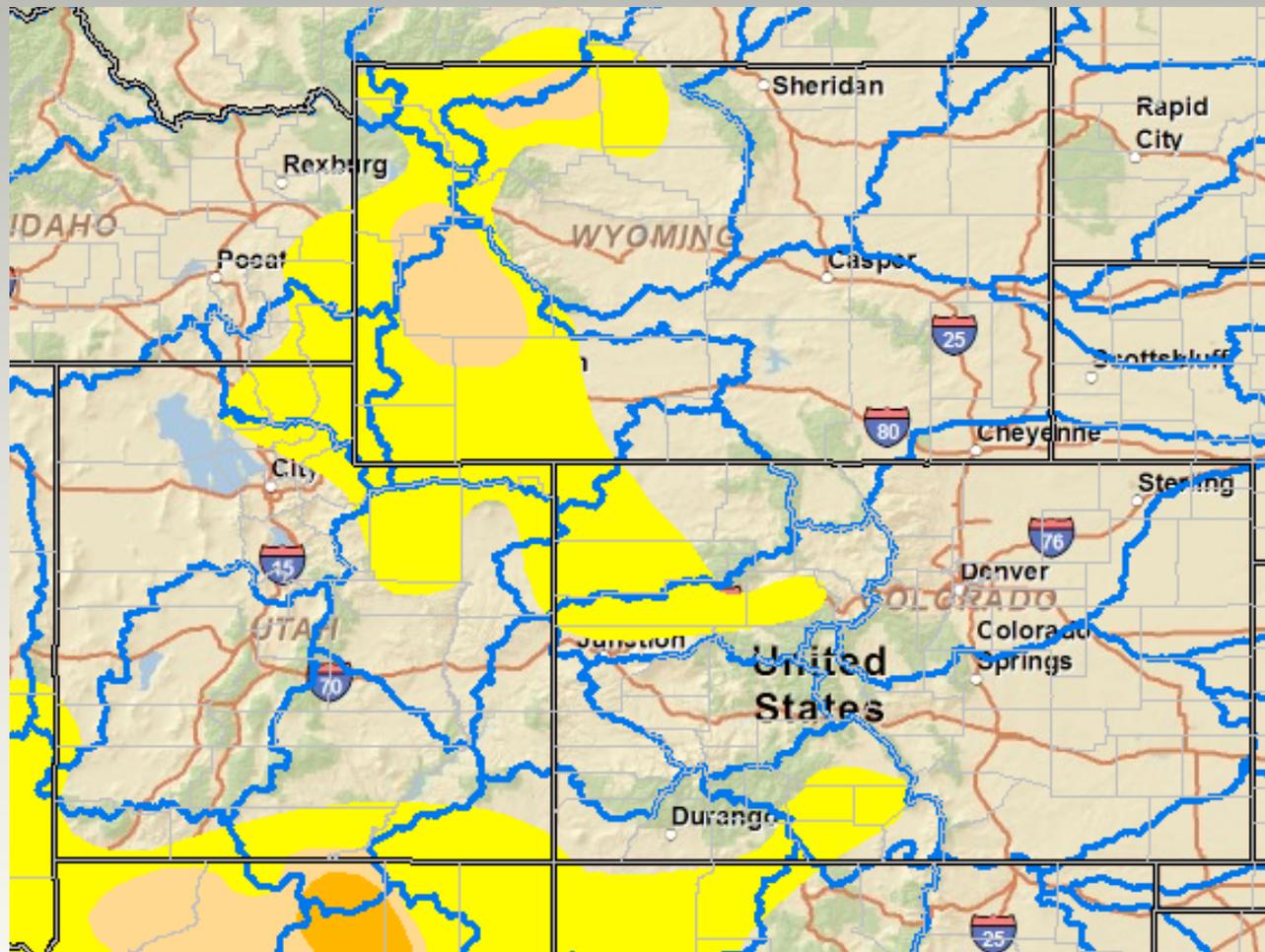
Monitoring and forecast products



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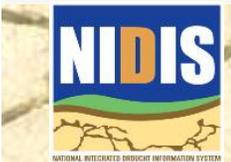
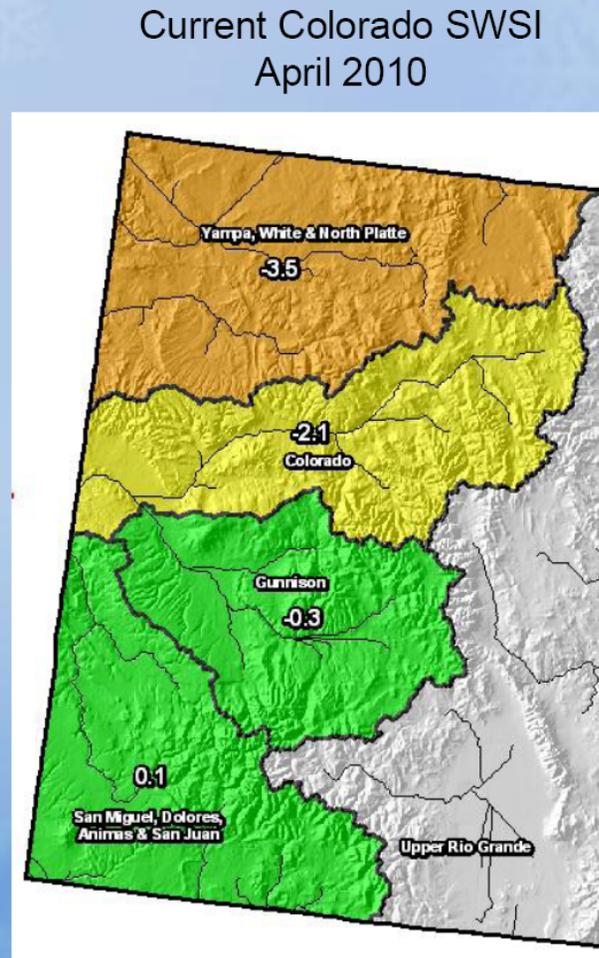
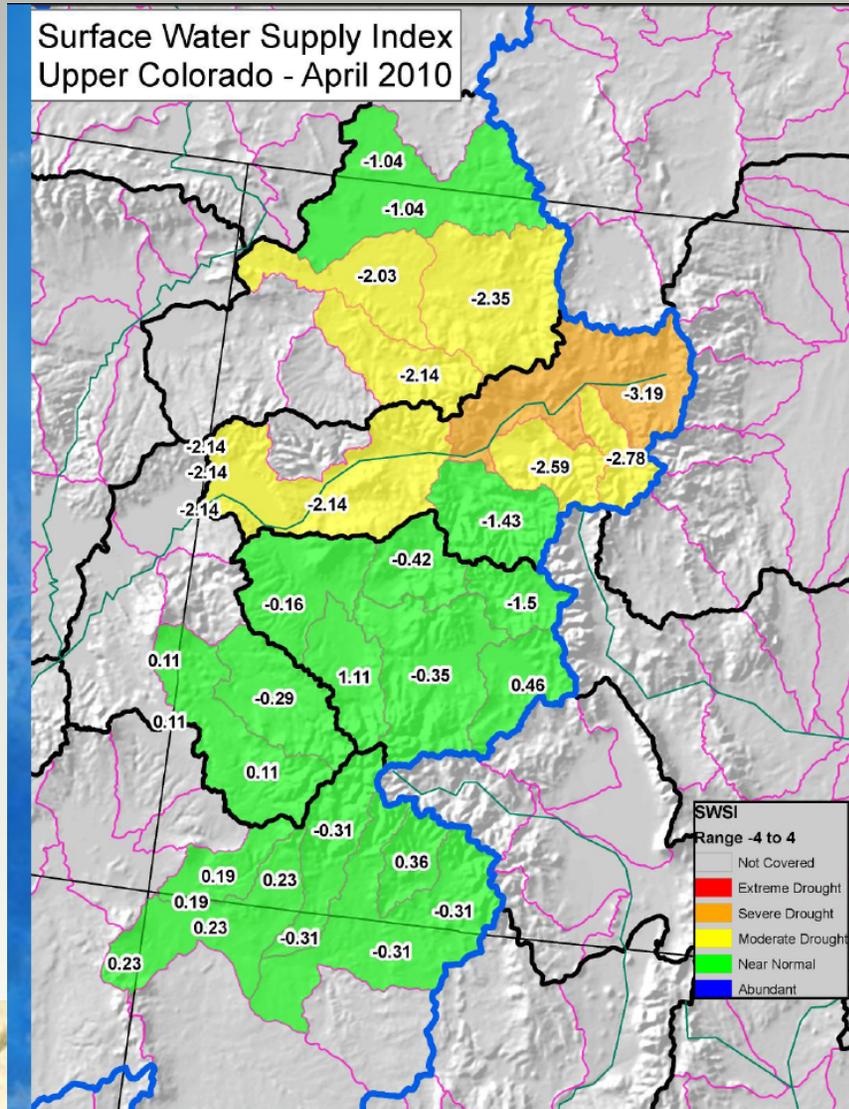


Consensus recommendation to USDM author

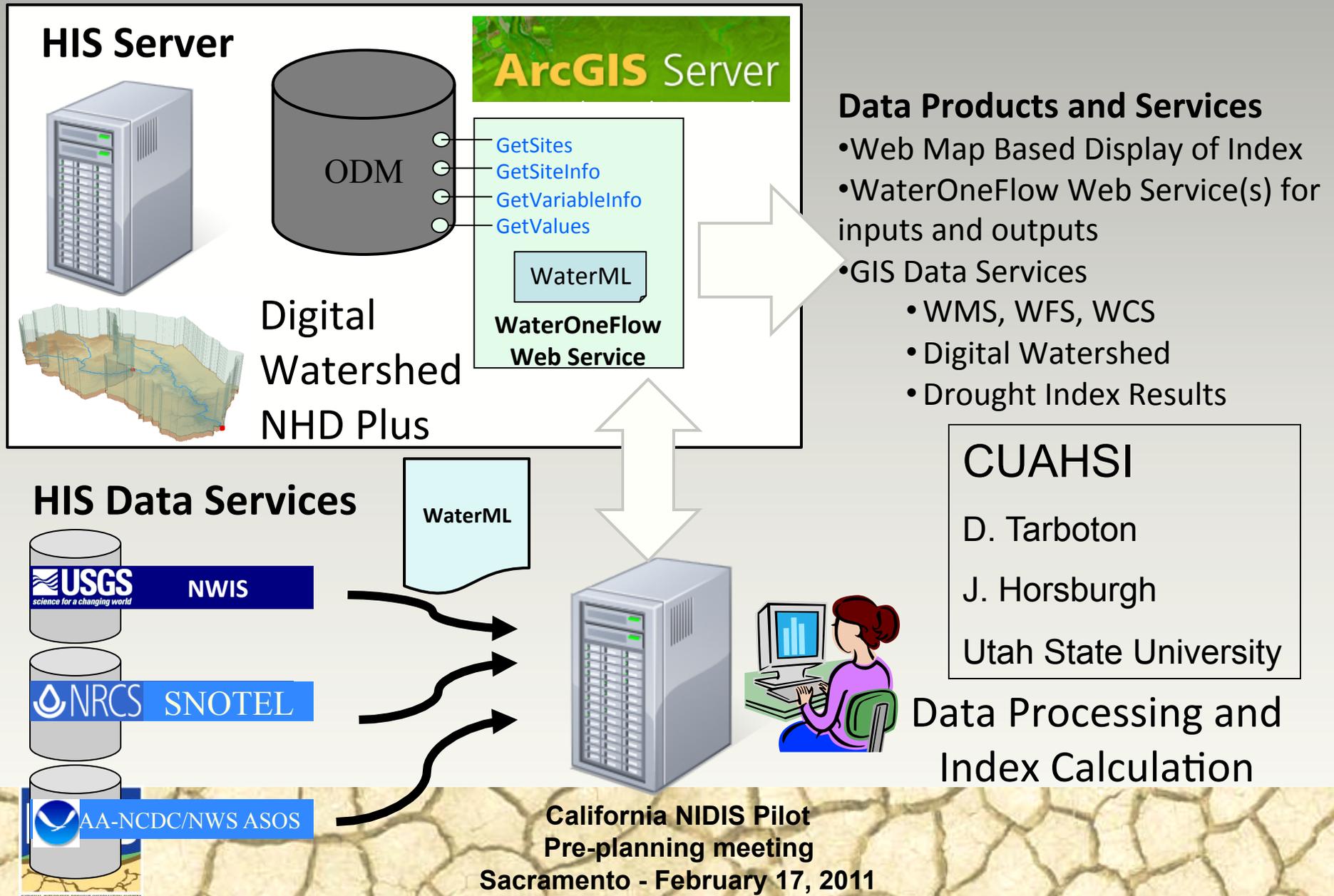


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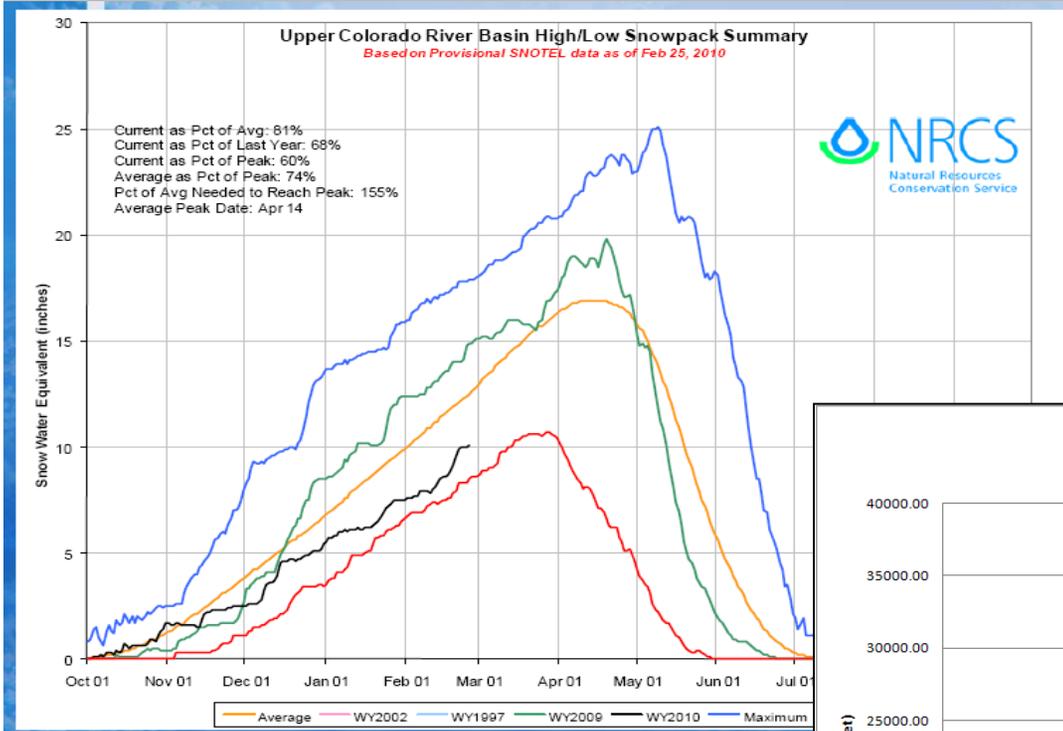
NRCS Revised Surface Water Supply Index (SWSI) for Colorado



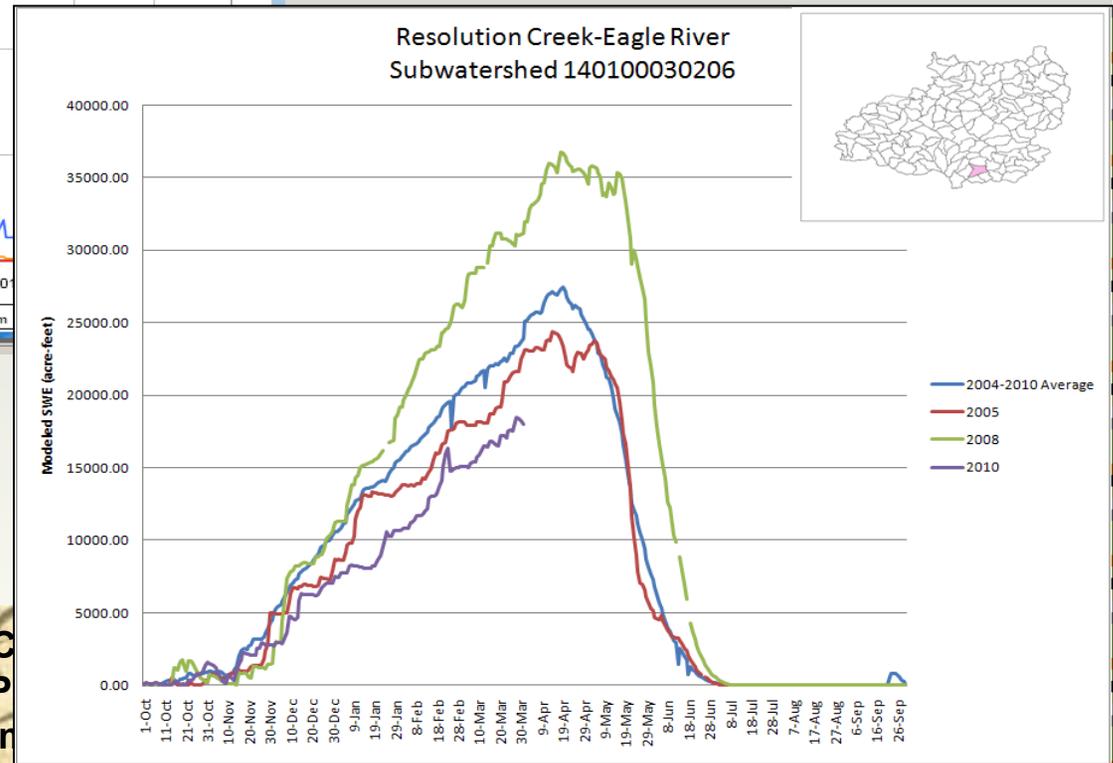
CUAHSI HIS Custom Drought Index Server



NWS modeled SWE charts on the web NOHRSC and NCDC



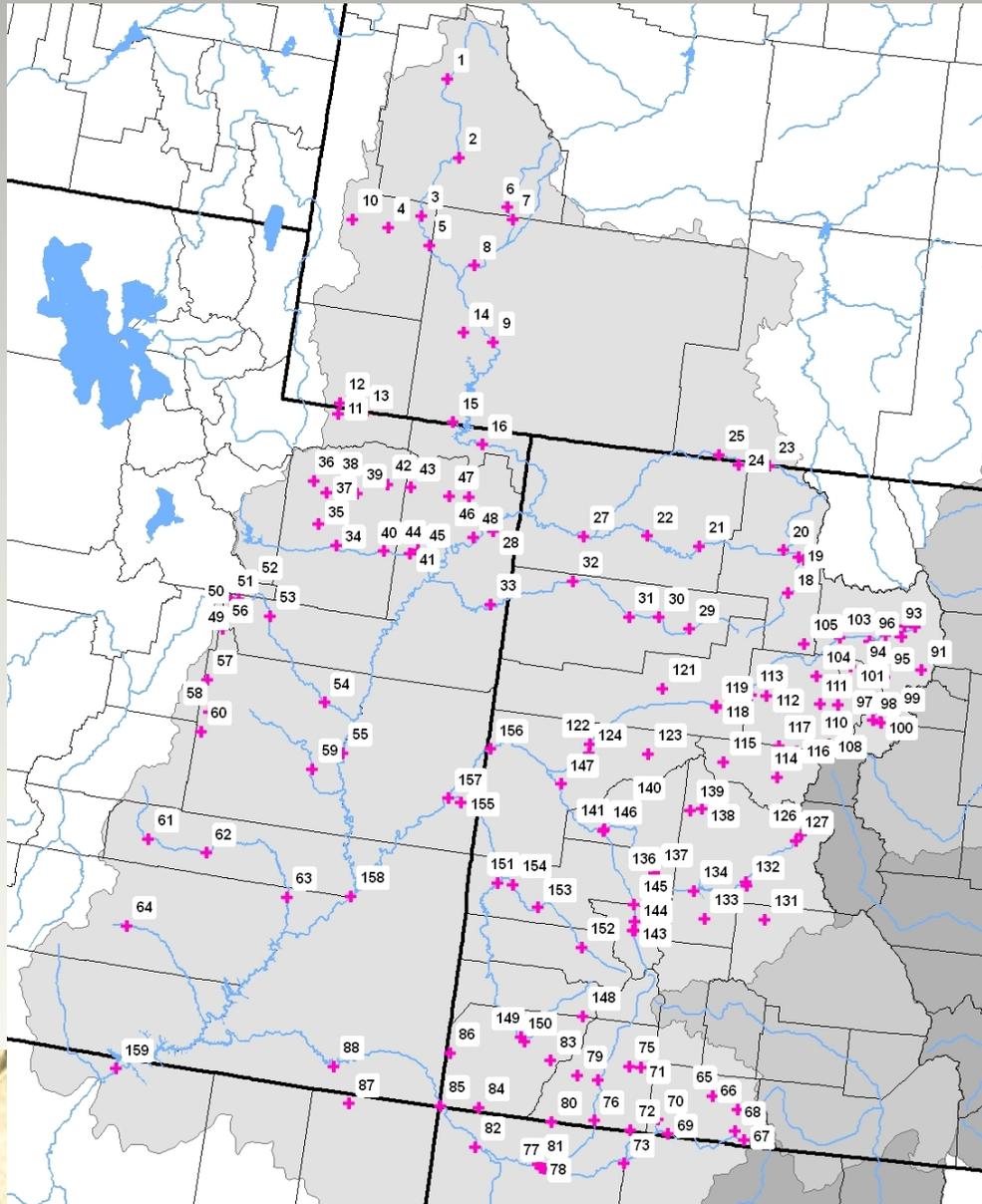
← NRCS SNOTEL



NWS SNODAS →



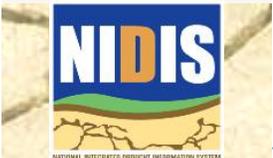
Upper Colorado River Low-Flow Impacts Database



**National Drought
Mitigation Center,
Lincoln NE**

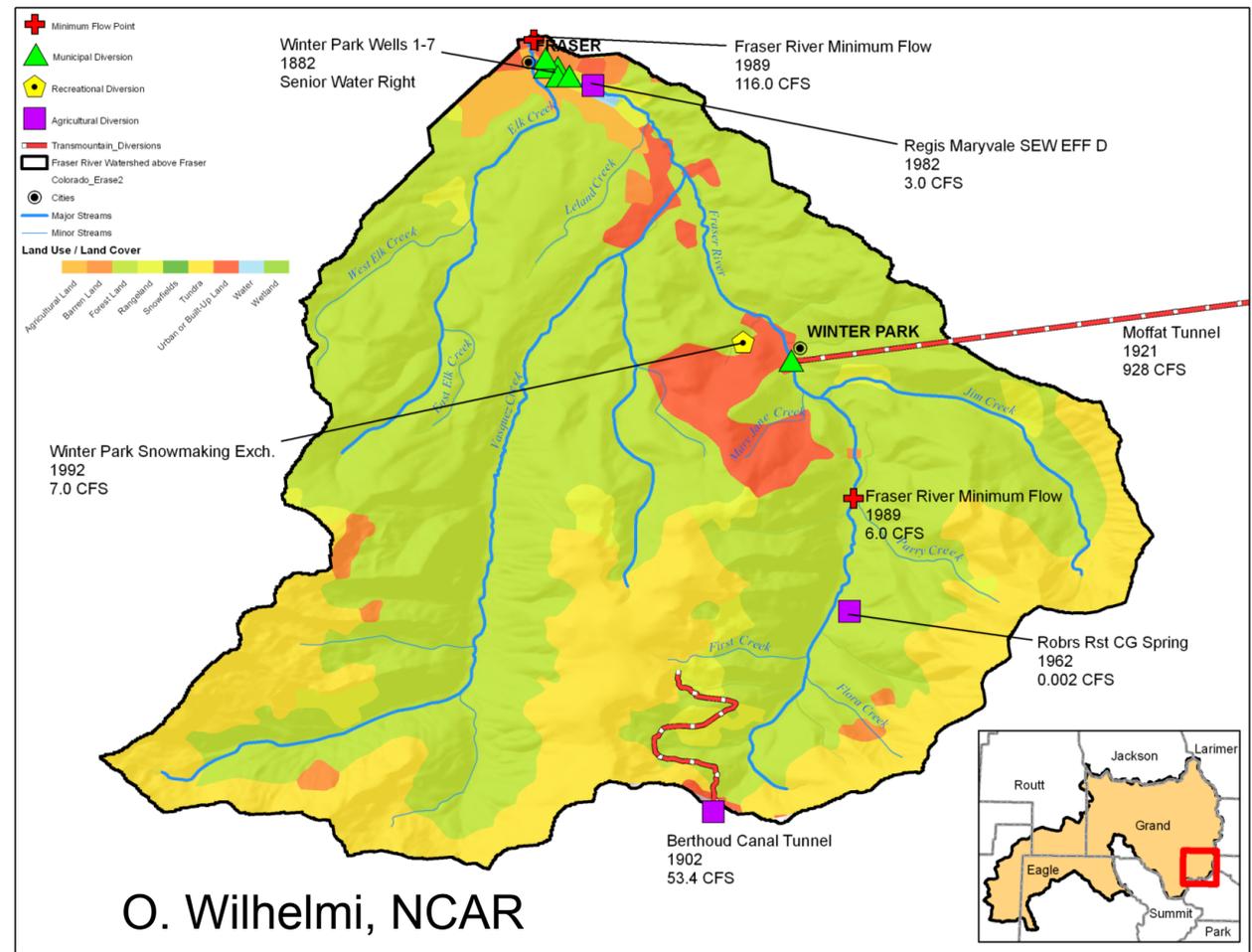
**Identified potential
low flow/stage
impacts near 164
forecast points**

**Impacts data
incorporated into
the NWS Advanced
Hydrologic
Prediction System
(AHPS)**



UCRB Water Demand Spatial Analysis

Develop drought vulnerability GIS database that represents topological relationships among water users and their respective sources of water supply

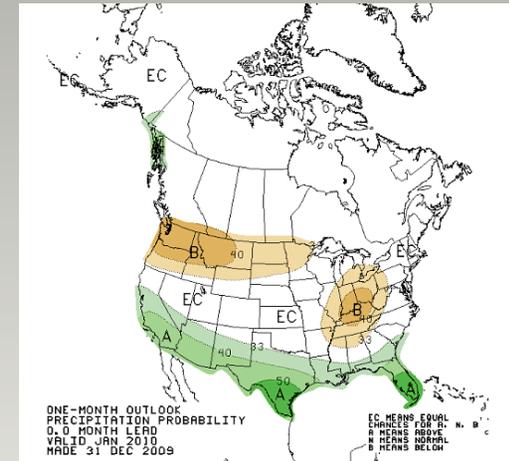
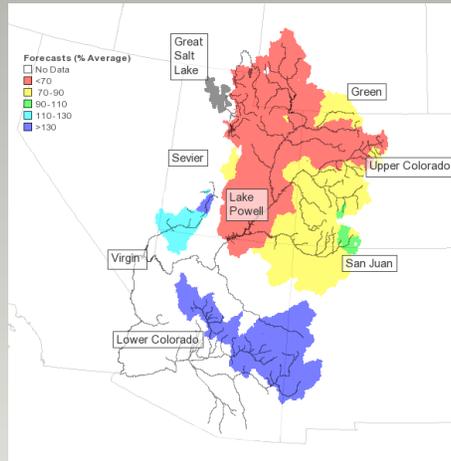


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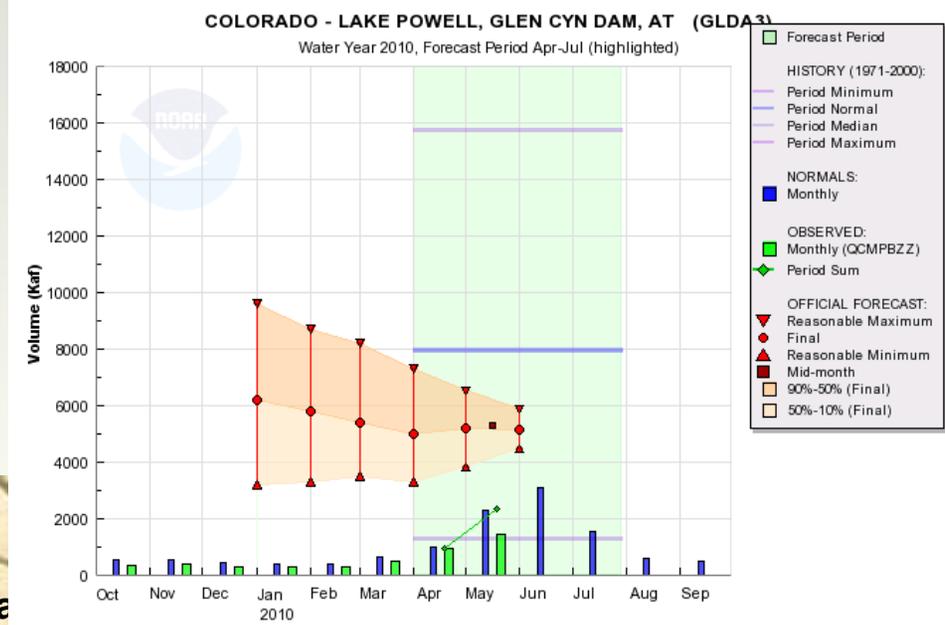
NWS CBRFC Water Supply Webinars

Basin Conditions
Climate forecasts

Streamflow forecasts



Jun 01 2010 Forecast: 5150 kaf (65% of normal)
Range: 4480-5880 kaf (56 - 74% of normal)



UCRB Community on the Drought Portal (NCDC)

National Integrated Drought Information System
Regional Drought Early Warning System
Upper Colorado River Basin

UCRB > Home

Area Drought Info

Select State within the DEWS

Select Other Regional DEWS

Related Information

- NIDIS Weekly Drought Webinars
- Tribal Resources
- Ongoing Research & Development

Upcoming Meetings

▼ To Be Determined
When: TBD
Where: TBD

Past Meetings

Expand All / Collapse All

- ▶ [UCRB Pilot Planning meeting for Federal Partners](#)
- ▶ [UCRB Scoping Workshop](#)
- ▶ [UCRB Monitoring Gaps Workshop](#)
- ▶ [UCRB Partners Update Meeting](#)

Featured Products

[Current Conditions](#) [Impacts](#) [Forecast](#)

U.S. Drought Monitor

September 14, 2010
Valid 7 a.m. EDT

Current	Drought Categories (Percent Area)					
	Term	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	75.6	27.2	6.8	0.6	0.0	0.0
Last Week (11/03/09)	75.5	26.5	6.3	0.6	0.0	0.0
12 Month Avg (11/03/09)	66.5	33.5	11.9	1.0	0.0	0.0
State Drought Index (11/03/09)	40.1	59.0	30.6	9.0	0.5	0.0
2010 Year (2/01/09 - 9/14/10)	42.1	27.8	25.4	8.0	0.0	0.0
10 Year Avg (10/1/00 - 9/14/10)	69.4	28.0	23.7	7.7	0.0	0.0

Legend:

- D0 (At least 10% of area)
- D1 (At least 25% of area)
- D2 (At least 50% of area)
- D3 (At least 75% of area)
- D4 (At least 90% of area)

The Drought Monitor forecasts are based on the most likely current conditions only. See accompanying detail summary for forecast methodology.
<http://drought.unl.edu/dm>

Released Thursday, September 16, 2010
 Author: M. Bosman, CPC/NCEM

Upper Colorado River Basin

Upper Colorado River Basin

Four Corners Tribal Lands

Drought in the News

-

Drought Monitor Time Series - West

%Area for west

D4

D3-D4

D2-D4

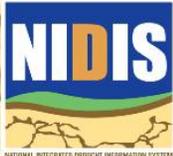
D1-D4

D0-D4

Date

Drought Classifications | Larger View

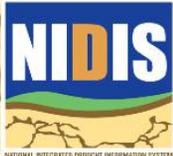
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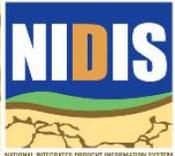
Summary

- **The UCRB drought community has been brought together to collaboratively address need for better information**
- **Regular and frequent summaries of drought information are now prepared, presented, and disseminated**
- **New products are in development to improve content of webinars, weekly summaries, and the portal**
- **Linking to LCCs, USBR basin study, Colorado Drought Plan, USGS WaterSMART**



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Thank you



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